

Management Plan for Hoosier Prairie Nature Preserve

Restoration Plan Database: Crystal Reports of Individual Plan Summaries

I. BASIC PLAN DATA

Plan name:

Management Plan for Hoosier Prairie Nature Preserve

Brief description of plan:

Hoosier Prairie is located in northwestern Indiana in an area that has been heavily developed for industrial and residential use. The 300-acre tract provides extensive prairie and savanna habitat for native animals with large home ranges and contains a wide variety of plant species. The area is a dedicated Indiana nature preserve. The management objective is to return the plant communities to presettlement conditions as determined by literature and field studies. Specific problems include tree and brush invasion, a lowered water table to which vegetation may have adjusted, and the impact of adjacent subdivisions and tank farms on preserve management.

Region the plan is located within:

Great Lakes Region

Watershed(s) included within the plan:

L047x

Area plan covers (in square miles):

square miles

Plan scale:

County

Plan's lead organization(s):

Indiana Division of Nature Preserves

Plan's Main Contact Information:

John Bacone
Director-Nature Preserves
Indiana Department of Natural Resources
Division of Nature Preserves
402 W. Washington St.
Room W267
Indianapolis, Indiana 46204
317-232-4052
317-233-0133
john_bacone_at_dnrlan@ima.isd.state.in.us

On-line version of plan:

Date of original plan:

11/1982

II. TECHNICAL INFORMATION

Plan includes restoration goals: Y

Level of detail of the goals:

G

Summary of the goals:

The primary management objective at Hoosier Prairie is to restore natural conditions to the extent possible, under current limitations on prescribed burning and drainage.

The secondary objective is to protect the area from adverse human use. This includes appropriate fencing and posting, development of a trail system and cooperation with utility companies. The Restoration and Maintenance plan includes; a. Implement prescribed burning program supplemented by cutting and herbicide treatment of woody species, b. Allow drainage ditches to fill in gradually, c. Adapt management techniques to plant communities which have adjusted to current moisture gradient, d. Maintain and establish permanent sampling plots to monitor succession and management effects on vegetation, e. Monitor breeding populations of vertebrate species, f. Monitor special plant species over time, g. Monitor water quality, h. Maintain special features with normal management techniques unless monitoring indicates need for special techniques. Restoration of natural conditions at Hoosier Prairie relies primarily upon elimination of tree and brush invasion (especially oak reproduction and sprouting, spread of aspen clones, and invasion by dogwood and other shrubs). Poor burning conditions and lack of fuel require that a burning program be supplemented with cutting and herbicide treatment of woody species.

Restoration of the original water table may be impossible. Elimination of the ditches would cause flooding of local subdivisions and vegetative communities which have adjusted to the current water level. A more practical solution may be to let drainage ditches fill in gradually and manage for plant communities as they adjust to the changing moisture gradient. A more important long-term management need may be the protection of local water quality and maintaining an adequate water table.

Plan recommends restoration of specific project sites:

Y

Plan includes a discussion of funding sources:

N

Plan addresses long-term protection of restored sites:

Y

Partners included in developing the plan:

Federal
State
Local
Business/Industry
Private landowners

Type(s) of public outreach included during plan development:

Information not available

Plan includes public outreach as part of plan implementation (e.g. annual public meeting, local group participation):

N

Plan discusses the application of innovative approaches to restoration:

N

Plan make use of GIS mapping capabilities:

N

Plan addresses monitoring/reference sites for ecosystem level monitoring (baseline conditions) by:

S

Plan addresses monitoring/reference sites for project level monitoring by:

S

The plan discusses or coordinates with other restoration plans covering the same geographic area:

N

Other plan names:

Plan contains detailed information on historic and/or current habitat size, rate of loss, acres restored or protected, etc.):

Y

Summary of this habitat information:

The Hoosier Prairie lies within the Lake Michigan watershed in Indiana. There are a number of factors that had a role in the formation and maintenance of the natural environment. The advent of the European settlers directly affected two of these and caused the most significant changes at Hoosier Prairie. Suppression of the regular fires and alteration of the level and degree of fluctuation of the water table tipped the balance in favor of successful habitation by woody species. The introduction of a competitive and preemptory alien flora upon the landscape, combined with the above and other man-made disturbances, perverted the presettlement scenario. Within the region of Hoosier Prairie, wet to dry prairies, marshes and sparse savannas dominated the landscape during presettlement times. Fires moving eastward under the influence of the prevailing westerly winds were very influential in maintaining these communities. Because of artificial drainage, most of the original marsh has now been replaced by extensive wet mesic and wet prairie, and the original savanna and wet prairie has grown up into oak and aspen thickets, respectively. Still, a diversity of species and community types remain and have been improved by recent management, primarily burning and cutting of aspen. In presettlement times this area was part of Cady Marsh, an impassable area with spots of standing water often three or more feet deep. Several ditches cross the prairie--remnants of an early attempt to drain it--but drainage is still poor and standing water is quite common throughout the growing season. The dominant marsh plant species are cat-tails and spartweed species. Willows have crowded out the original marsh vegetation in the shrub swamp, resulting in low species diversity.